HARBOR SAFETY PLAN

of the Humboldt Bay Area

Mandated by California Oil Spill Prevention and Response Act of 1990

ORIGINALLY APPROVED: January 1993

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REVISED: July 2008

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of the
Humboldt Bay Area

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INTRODUCTION

Humboldt Bay Area Harbor Safety Plan Boundary

The plan boundaries for the Humboldt Bay Area Harbor Safety Plan include all submerged lands between Shelter Cove, California and Trinidad Head, California, from a shoreline elevation of mean higher high water, seaward for three (3) miles including all submerged lands of Humboldt Bay (Inner Harbor). The open water boundary of the "Harbor" shall be defined as the area centered on the Humboldt Bay Sea Buoy and extending radially outward for a distance of one mile then landward to the perpendicular intersection with the north and south spits. See Appendix I for a boundary map of the areas under the jurisdiction of the Humboldt Bay Area Harbor Safety Committee.

Humboldt Bay Area and Port of Humboldt Bay.

The Humboldt Bay Area is located approximately 225 miles north of San Francisco, California. Humboldt Bay is a protected harbor. The mouth of the bay is much smaller than the body of water held behind it and open water conditions do not prevail. Humboldt Bay is the only deep water harbor between San Francisco, California and Coos Bay, Oregon.

The economy of the area is based upon forest products production and tourism of the nearby Redwood Forests. A small fishing fleet is also supported by local offshore fisheries. The Humboldt Bay and Harbor exports raw and processed timber products. The North Bay supports the largest oyster beds in California, producing more than 50 percent of the State's domestic oyster harvest.

There is only one bulk fuel terminal, handling both diesel and gasoline fuel, located in Humboldt Bay. Shipments of petroleum products (gasoline and diesel) range in frequency from every four days to every ten days. Three marine fueling facilities currently exist in Humboldt Bay. E-Z Landing, located in King Salmon, supplies gasoline for small recreational and commercial vessels; Johnny's Marina and RV, also in the King Salmon area, supplies gasoline for small recreational and commercial vessels; Englund Marine, located along the south side of the Eureka Inner Reach, is the primary source of fuel, supplying gasoline and diesel to recreational and commercial vessels.

The main traffic corridor through Humboldt County is U.S. Highway 101, also known as the Redwood Highway.

The population for Humboldt County is approximately 130,000. The City of Eureka has a population of approximately 25,000 and is the largest city in Humboldt County. The county seat is located in Eureka, and as such, the city of Eureka is a hub to outlying areas.

Humboldt Bay Area Harbor Safety Committee and Plan.

The Humboldt Bay Area Harbor Safety Committee (HSC) was mandated by the California Oil Spill Prevention and Response Act of 1990 (ACT). On November 20, 1991, the California Department of Fish and Game's (CDFG) Office of Oil Spill Prevention and Response (OSPR) officially appointed the Committee.

The following is the present membership of the Committee:

Mr. David Hull (Chair)
Chief Executive Officer
Humboldt Bay Harbor, Recreation
and Conservation District
Representing Port Authority

Ms. Suzie Howser
Dockmaster
Humboldt Bay Harbor, Recreation
and Conservation District
Representing Port Authority

Ms. Ellen Faurot-Daniels
Oil Spill Program Supervisor
Representing
California Coastal Commission

Ms. Robin Blanchfield
Energy/Oil Spill Analyst
Representing
California Coastal Commission

Deputy Phillip Daastol
Humboldt County Sheriff's Department
Representing Local Law Enforcement

Deputy Roy Reynolds
Humboldt County Sheriff's Department
Representing Local Law Enforcement

Capt. Gilbert Groszmann
Knutson Towboat Company
Representing Tug Operators

Capt. William S. Earls
Marine Operations
National Response Corporation
Representing Tug Operators

Capt. Tim Petrusha
Bar Pilot
Humboldt Bay Harbor, Recreation
And Conservation District
Representing Bar Pilots

Capt. John Powell
Bar Pilot
Humboldt Bay Harbor, Recreation
And Conservation District
Representing Bar Pilots

Mr. Richard Lauer
Sause Bros. Tug and Barge
Representing Tanker Operations

Capt. Jeff Hill
Sause Bros. Tug and Barge
Representing Tanker Operations

Mr. Richard Trygar
SSA Pacific
Representing Dry Cargo Operators

(Alternate – Open)

Ms. Helene Rouvier
Table Bluff Reservation Wiyot Tribe
Representing Tribal/Environmental Organization

Mr. Jon Mooney
Table Bluff Reservation Wiyot Tribe
Representing Tribal/Environmental Organization

Capt. Ken Bates
Cloudburst Fishing Company
Representing Commercial Fishing

Mr. Wayne Sohrakoff
Retired Commercial Fisherman
Representing Commercial Fishing

Capt. Tim Klassen
Reel Steel Sportfishing
Representing Recreational Boaters

Mr. John "Hawk" Martin
Humboats Kayak Adventures
Representing Recreational Boaters

Lt. Scott Parkhurst
Surface Operations
United States Coast Guard
Group Humboldt Bay
Representing Local Coast Guard

BM1 Clare Linder
Aids to Navigation
United States Coast Guard
Group Humboldt Bay
Representing Local Coast Guard

Mr. Gerald Wheaton
Navigation Manager
NOAA
Office of Coast Survey

Ms. Rebecca Smyth
NOAA
Office of Coast Survey
San Francisco Bay Area

Capt. Paul Gugg
Commanding Officer
United States Coast Guard
San Francisco Bay Area

Capt. Chris Martino
Commanding Officer
United States Coast Guard
Group Humboldt Bay

CWO Tom Haug
Marine Safety Detachment
United States Coast Guard
Group Humboldt Bay

Mr. Stephan Chesser
Dredging Program Manager
United States Army Corps of Engineers
San Francisco District

Mr. Al Storm – OSPR Liaison
Oil Spill Prevention Specialist
CA Department of Fish and Game
Office of Spill Prevention and Response

Mr. David Ammerman
U.S. Army Corps of Engineers
Regulatory Branch
Eureka Field Office

Mrs. Linda Broadman – Secretariat
CA Department of Fish and Game
Office of Spill Prevention and Response

Mr. Jeff Dayton
Wildlife Biologist
CA Department of Fish and Game
Office of Spill Prevention and Response

The ACT required the Committee to review and evaluate the following:

1. Sounding checks;
2. Anchorage designations;
3. Traffic and routings from port construction and dredging projects;
4. Procedures for routing vessels during emergencies that impact navigation;
5. Communications systems;
6. Channel design plans;
7. Placement and effectiveness of navigational aids;
8. Bridge management requirements;
9. Small vessel congestion;
10. Recommendation as to whether establishing or expanding VTS systems within the harbors is desirable, and recommendation for funding VTS systems and other projects;
11. Recommendation determining when a tugboat(s) must accompany tankers;
12. Competitive aspects of recommendations; and,
13. Suggested mechanisms to ensure that the provisions of the plan are fully and regularly enforced.

The ACT further required that the Harbor Safety Plan (HSP) be submitted to the OSPR Administrator by December 31, 1991, and be subject to an annual review on or before July 1st of each year. On March 24, 1992, and April 27, 1992 letters were submitted to OSPR requesting an extension of the December 31, 1991 deadline until August 1, 1992, and on July 28, 1992 a letter was submitted to OSPR requesting an extension of the August 1, 1992 deadline to October 1, 1992.

On or before July 1 of each year, the ACT requires that the Harbor Safety Committee report its findings and recommendations to the Administrator concerning the safety of its harbor and any recommendations for improving tanker and barge safety in the harbor by amending the provisions of the Harbor Safety Plan, or through other means.

In developing the Harbor Safety Plan the committee reviewed all aspects of vessel operations and safety procedures in the Humboldt Bay Area harbor. The primary effort was to improve both harbor safety and the protection of the environment.

The first Humboldt Bay Area Harbor Safety Plan was respectfully submitted by the Committee, without any minority reports, to Mr. Pete Bontadelli, Administrator, Office of Oil Spill Prevention and Response, California Department of Fish and Game for review as required by the ACT. Subsequent updates were also approved by the OSPR Administrator.

GEOGRAPHICAL BOUNDARIES

General Geographic Description

Humboldt Bay

Humboldt Bay is a landlocked harbor on the coast of Northern California, about 225 nautical miles north of San Francisco and about 156 nautical miles south of Coos Bay, Oregon.

The greater Humboldt Bay actually consists of two large bays connected by a long, narrow channel and separated from the ocean by two long, narrow spits. From the entrance, Humboldt Bay extends north and south a distance of approximately 14 miles, varying in width from 0.5 to 4 miles, and covering an area of over 17,000 acres. Humboldt Bay is surrounded by rolling terraces, steep mountains and narrow valleys typical of the coast ranges of the region. Dense forests of redwood and Douglas fir cover much of the area. Humboldt Bay is the only harbor between San Francisco and Coos Bay with channels deep enough to permit passage of large, commercial ocean going vessels.

The entrance to Humboldt Bay is bordered by two rubble mound jetties approximately one half mile apart and extending perpendicularly from the ends of two long, narrow sand spits that separate the shallow bay from the ocean. The water surface of Humboldt Bay covers over 26 square miles at high tide and about 8 miles at low tide.

The topography of the Humboldt Bay area is relatively flat and characterized by bay waters, tidal flats, and slightly elevated flat to gently rolling terraces. Humboldt Bay is bordered on the south by Table Bluff ridge and on the north and east by rugged mountains. Freshwater and Jacoby Creeks discharge into Arcata Bay on the north and Elk River and Salmon Creek discharge into the central portion of Humboldt Bay and into South Bay, respectively. These streams and their corresponding sloughs are tidal, extending from one to two miles inland from their mouths. The flood plains are uniformly level grasslands, marshlands, and mud flats. There are many smaller tidal sloughs at the north end of Humboldt Bay near Arcata. The Mad River Slough is an abandoned mouth of the Mad River extending inland for about three miles. The present mouth of the Mad River is located approximately five miles north of Humboldt Bay. (See Appendix I – 1 Location Map)

Because of its general geomorphology, Humboldt Bay is usually divided into three distinct areas: North or Arcata Bay, Middle or Entrance Bay, and South Bay. The southwest ends of Woodley and Indian Islands may be considered the south end of North Bay. South Bay extends south of the South Spit Jetty and King Salmon.

North Bay covers about 13 square miles, and is 5.8 miles at its longest and 4.3 miles at its widest points. It is bounded by North Spit to the west, Arcata Bottoms to the north, Bayside Bottoms and Fickle Hill to the east and Eureka to the south. Indian (formerly Gunther), Woodley, and Daby Islands are all located in the southern portion of North Bay. McDaniel Slough, Jacoby Creek, and Freshwater Creek all discharge fresh water into the North Bay. Mad River Slough, located in the northwest portion of North Bay, does not normally discharge fresh water. During flood conditions on the Mad River, floodwaters may overflow into the slough, and thus into the Bay.

North Bay is extremely shallow, with over one-half the area (approximately 7 square miles) exposed at low tide. These tidal flats are dissected by several deep channels and numerous shallow channels. Samoa Channel and Eureka Channel are the principal commercial waterways of North Bay. The Arcata Channel located in the extreme North Bay (18 feet deep and 150 feet wide) is no longer used for commercial navigation and has not been maintained since 1931.

Entrance Bay is approximately 5 miles long and a maximum of one mile wide. It is bounded by North Spit to the west, and Eureka and the Elk River floodplain to the east. Unlike North and South Bay, it consists of a single deep channel, with generally steep sides. Elk River, the largest freshwater source in Humboldt Bay, empties into Entrance Bay.

South Bay covers approximately 7 square miles, with a maximum length of 4 miles and maximum width of about 2.5 miles. It is bounded by South Spit to the west, Humboldt Hill and Beatrice Flats to the east and Table Bluff to the south. Salmon Creek is the only freshwater source which discharges into South Humboldt Bay.

South Bay is similar to North Bay with respect to the broad expanses of tidal flats. These flats are also incised by tidal channels. Only one, the Fields Landing Channel, is used commercially and is maintained by the United States Army Corps of Engineers (USACE).

Separating the Bay from the ocean are two long sand spits with a narrow inlet between them. North Spit is about 10 miles long and 0.5 to 0.9 miles wide. Much of this spit consists of large dunes, up to 50 feet high and heavily forested in places. South Spit is about 4 miles long and varies from 0.1 to 0.7 miles in width; it consists of sparsely vegetated dunes much smaller than those on North Spit.

The entire Humboldt Bay watershed encompasses approximately 223 square miles. The Mad River (to the north) occasionally overflows into the Bay under flood conditions. The Eel River (to the south) is separated from Humboldt Bay by Table Bluff.

Lowlands to the north and east consist of creek and river floodplains, and former tidal marshes that were diked and drained for agricultural purposes. These

lowlands are bordered by low foothills of the Coastal Range. Farther to the east the terrain becomes more mountainous, with elevations of 3,000-5,000 feet and narrow steep canyons.

Eureka is the principal city adjacent to Humboldt Bay. It serves as the County seat and commercial center of the region. Arcata is the only other incorporated city adjacent to Humboldt Bay, and is the location of Humboldt State University. Other communities in the Humboldt Bay area include Bayside, Fairhaven, Fields Landing, King Salmon, Manila, and Samoa.

The commercial/industrial portion of Humboldt Bay is generally located in mid-Humboldt Bay between the southern end of the Fields Landing Channel and the Samoa Bridge to the north. Within this area, coastal dependent industrial uses exist on the east side of the Samoa Spit, along a one-mile stretch of Eureka's shoreline and along a similar length of the Fields Landing Channel in the community of Fields Landing. In 2007, the Harbor Safety Committee of the Humboldt Bay Area adopted a dock address system listing 60 docks and structures within Humboldt Bay. The dock addresses are listed by port area, Universal Location Code, channel, common name, AIS destination code and latitude/longitude. The complete address system can be found in Appendix IX. For additional information on the port area and services, please consult ***www.humboldtbay.org***.

The local seismic history is active, extremely complex, and not fully understood. Humboldt County is considered not as active as other counties in California, primarily those counties bordering the San Andreas Fault. Destructive earthquakes occur occasionally, such as the April 1992 quake (Richter magnitude 7.1), which was centered 30 miles south of Eureka. A Richter magnitude 7.0 earthquake occurred in November 1980, located on a possible ocean ward extension of the Mad River Zone. The epicenter was located approximately 5 miles offshore of Patrick's Point, 22 miles from Eureka, and was approximately 12 miles deep.

Shelter Cove

Shelter Cove is about 60 ocean miles south of Humboldt Bay. It lies under the south face of Point Delgada and affords fair shelter in northwest weather, but is exposed and dangerous with south or southeast winds. Occasionally a swell runs in the cove. There are no wharves in the cove.

The rocks, covered 1 to 5 fathoms south of Point Delgada, can be avoided in approaching Shelter Cove by staying over 200 yards south of the lighted whistle buoy and east of the bell buoy.

From Point Delgada the coast extends northwest for 19 miles to Punta Gorda and is backed by steep mountains covered with chaparral and trees. A black sand beach, 0.8 miles north of Point Delgada, extends north for 4 miles. Kaluna Cliff overlooks the south end of the sand beach, and its steep face, scarred by frequent slides, is a noticeable landmark.

Trinidad Head

Trinidad Head is nearly 39 miles north-northeast of Cape Mendocino and 17.5 miles north of the entrance to Humboldt Bay. It rises to a height of 380 feet. The sides are steep and covered with chaparral. From north or south the head is generally seen as a dark round-topped island. Near the north end it is joined to the mainland by a narrow neck, from the south side of which Little Head, a rocky knoll 125 feet high, projects into Trinidad Harbor. The white cross 200 yards north of the south point of Trinidad Head is fairly prominent.

Trinidad Head Light, 196 feet above the water, is shown from a 25 foot white square tower near the southwest side of the head. A lighted whistle buoy is 1 mile west of the head. A fog signal is at the light.

Trinidad Harbor, a small cove east of Trinidad Head, affords shelter in northwest weather, but is dangerous in west or south weather. The cove is small and is further constricted by several rocks, and as a rule, there is always a swell even in north weather. It is used by fishing boats to a considerable extent during the summer, even though the holding ground is only fair. A white lighthouse structure, a memorial containing the original oil-burning light used at Trinidad Head until 1948, is at the center of the bluff on the north side of the harbor. A pier with a fish house and restaurant is in the bight west of Little Head. Fish are unloaded at the pier and are trucked to Eureka and San Francisco. A small marine railway near the foot of the pier is used for launching and retrieving small craft up to 26 feet long and 9 feet wide.

REF: 14 CCR 802(b)(2)

HARBOR CONDITIONS

Weather

Existing and Expected Weather. Humboldt Bay has a year round maritime influenced climate. The rainy season is from October to April, during which 90% of the precipitation falls. The annual average rainfall is 38 inches. The dry season is from May to September and is marked by considerable fog and low clouds. The fog usually clears by late morning. The prevailing wind is from the northwest, with most storms approaching from the north. Typical yearly temperatures range from lows in the mid 30s to highs in the low 70s (degrees Fahrenheit). Record highs have reached the 80s and lows have approached 20 degrees.

Tides

There are two tide cycles every twenty-five hours. Each cycle occurs 50 minutes later each day.

The tidal range between mean lower low water (MLLW) and mean higher high water (MHHW) is 6.4 feet at the Bay Entrance, 6.7 feet at Eureka and Fields Landing, and 7.0 feet at Samoa. Extremes may vary from 11 feet or more between tide cycles. The 1964 Alaskan earthquake produced a 6-foot tide change in 20 minutes in the Samoa Channel.

Tidal currents generally parallel the federally maintained channels. Maximum tidal current velocities during flood and ebb cycles is approximately 2 to 3 knots in the North Bay Channel and 2 to 4 knots in the entrance channel. The 1964 Alaskan earthquake produced a tsunami-induced current of approximately 14 knots in the Samoa Channel.

Making the turn from the approach to the entrance range is abrupt and difficult to make under certain conditions of wind, sea, and current. Strong and variable tidal and non-tidal currents, rough seas, breaking waves, wind and fog often adversely affect navigation in the entrance channel.

Shoaling

Shoaling conditions can exist in the bar and entrance channels. The conditions are unpredictable but occur more often in the winter months or upon the onset of inclement weather.

Some of the more prominent shoaling areas include the Bar Channel in the vicinity of Buoy 2 and the tip of the south jetty; the Entrance Channel; the 110-degree turn in the vicinity of Buoy 7 and Buoy 9; the area around Buoy 10, and

the area around Lighted Beacon No. 16. (See Appendix I - 4 Map of Humboldt Bay)

Poor visibility because of surf haze and fog may also hamper vessel operations.

REF: 14 CCR 802(b)(3)(A)(b)(i)(B)(iii)

HARBOR DEPTHS AND CHANNEL DESIGN

Channel Depth

The Federally authorized and maintained navigation channels in Humboldt Bay, from south to north (as noted in Appendix I – 3, Humboldt Bay Area Facilities Map) and are as follows:

Fields Landing Channel - 26 feet deep (MLLW) (28 feet with overdredge), and 300 feet wide.

Fields Landing Turning Basin - 26 feet deep (MLLW) at mile 3.16 (lower end of Fields Landing Channel) - 300 to 800 feet wide, and 600 feet long.

Bar and Entrance - 48 feet deep (MLLW) (50 feet with overdredge), and 2100 feet wide at seaward mile 1.0 NM tapered to 750 feet wide at seaward mile 0.18, and 500 wide from seaward mile 0.18 to mile 0.75.

Turn – (110 degree turn) - 48 feet deep (MLLW) (50 feet with overdredge)

North Bay Channel - 38 feet deep (MLLW) (40 feet with overdredge), and 500 feet wide from mile 0.75 to mile 4.29.

Outer Eureka Channel - 38 feet deep (MLLW), and 400 feet wide between mile 4.29 and mile 5.0.

Inner Eureka Channel - 26 feet deep (MLLW) (28 feet with overdredge), and 400 feet wide between mile 5.0 and mile 6.30.

Samoa Channel - 38 feet deep (MLLW), and 400 feet wide between mile 4.29 and mile 5.84.

Samoa Turning Basin beyond mile 5.84 (upper end of Samoa Channel) - 38 feet deep (MLLW) (40 feet with overdredge), and 400 to 1000 feet wide, and 1800 feet long.

Arcata Channel - 18 feet deep and 150 feet wide. Abandoned since 1931, it is no longer maintained.

Design

The Humboldt harbor channels were designed to conform to the historic tidal drainage patterns of Humboldt Bay. In design of the channels and other navigational features,

adequate clearance between the vessel keel and the channel bottom must be taken into account. Clearance factors must allow for vessel squat, trim, maneuverability, and wave action. The Humboldt Bay Harbor District has established rules requiring a two-foot underkeel clearance on all vessels over 300 gross tons.

The U.S. Army Corps of Engineers monitors channel depth, width, and alignment at least annually, and consults with the Harbor District and others concerning any changes. The Corps of Engineers has also initiated (2004) a long-term shoal management study of the bar/entrance channel to Humboldt Bay.

REF: 14 CCR 802(b)(3)(D)

RECOMMENDATIONS

MONITORING THE IMPROVED CHANNELS

Recommendations

The Harbor Safety Committee has evaluated the current dredging program to determine accurate depth information and find that improvements are necessary.

Recommendation 1

a. *Because of adverse weather conditions some channel areas of Humboldt Bay can shoal very quickly. The U.S. Army Corps of Engineers needs to continue to monitor the channels to assure that sufficient depths are maintained for safe vessel passage. The Entrance Channel and North Bay Channel shall be maintained at the project depth in order to minimize the risk of grounding. This recommendation is to be conducted and funded by the U.S. Army Corps of Engineers.*

b. *Soundings associated with existing annual harbor dredging operations by the U.S. Army Corps of Engineers are conducted between April and October, and include the Bar Channel, Entrance Channel, North Bay Channel, and the Samoa Channel. These dredge related soundings are considered adequate for traffic safety during the summer season providing that such dredging project-related soundings do commence with the "conditional" sounding in April, which is deemed necessary to indicate post-storm season conditions. Should the U.S. Army Corps of Engineers change existing dredging schedules, these areas will require sounding in April for traffic safety. This recommendation to be conducted and funded by the U.S. Army Corps of Engineers.*

c. *Monthly soundings from December to March from the Bar to Beacon No. 11. This recommendation to be conducted and funded by the U.S. Army Corps of Engineers.*

d. *The above sounding information is to be provided in a timely manner to the Humboldt Bay Harbor District and to shipping agents who request it from the Corps of Engineers.*

e. *In 2004 the Humboldt Bay Harbor, Recreation and Conservation District partnered with the U.S. Army Corps of Engineers (USACE) to develop a long term sediment management program aimed at a permanent solution to minimizing shoaling at Humboldt Bay's entrance between buoy 2 and the south jetty. In 2005 the USACE completed the reconnaissance phase of this project. The next*

phase of the project is to complete a feasibility study of the nine potential remedies to the shoaling issue. To initiate the feasibility study the USACE requires a 50/50 match of the approximately three million dollar project. The Harbor Safety Committee recommends the State of California, through proposition 1B, funds the State's share of the match.

Action 1: The OSPR will petition the U.S. Army Corps of Engineers to perform recommendation 1 a-e above as part of a program to determine and portray accurate depths for Humboldt Bay. A letter of request will be prepared by the OSPR Planning Branch within 30 days of the date the Harbor Safety plan has been approved and will be submitted to:

U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103-1398
Attn: Lt. Colonel Laurence M. Farrell
(415) 503-6700

Recommendation 2

Each public facility shall maintain the channel project depth of the berth. Industrial, and other private docks shall maintain a depth sufficient for intended use. Soundings shall be performed on a periodic basis, at least annually, to verify the depth of water in and to each berth. This recommendation to be conducted and funded by the Owner of the respective Berth.

Action 2: Recommendation 2 is currently practiced by facilities within the Harbor. No action is required by the OSPR at this time.

TSUNAMI

A Tsunami generated by an earthquake along the Cascadia Subduction Zone or on the Mendocino Fault / Northern San Andreas Fault could arrive in just minutes after the initial shock. The lack of waning time from such a nearby event will result in higher casualties than if it were a distant tsunami source. For tsunamis originating at distant sources, the West Coast Alaska Tsunami Warning Center will provide initial warning notification to local emergency response agencies in time to warn and evacuate threatened coastal areas.

The County of Humboldt Office of Emergency Services is currently involved in developing a tsunami plan for the County of Humboldt as part of their emergency operations plan. The National Weather Service Forecasting Office in Eureka has acquired warning sirens to be used as part of the early warning system for numerous communities along the North Coast as part of the implementation of the County plan.

Recommendation 1

In the event that a major earthquake or tsunami occurs within the Humboldt Bay region, the Port Authority will make every effort to contact the U.S. Army Corps of Engineers to survey the channels and entrance if adverse conditions are noted.

If a surveyor cannot respond to the request within a reasonable length of time, the Port Authority may contact the National Ocean Service for assistance in this matter. The Point of Contact is the West Coast Regional Manager for the Office of Coast Survey at 831-583-2365 or the Deputy Director of the Navigational Service Division at 301-713-2732 extension 160.

Action 1: The HSC will participate in the development of the tsunami section of the County of Humboldt Emergency Operations Plan.

AIDS TO NAVIGATION

Types of Aids to Navigation

The aids to navigation within Humboldt Bay Harbor and adjacent to it are as follows:

1. Fixed Aids: Steady, flashing, rotating, and radar reflecting.
2. Buoyed Aids: Flashing, and radar reflecting.
3. Channel Markers: Fixed and buoyed.
4. Audible Markers: Horn, bell and whistle.

Humboldt Bay Entrance Small Boat Warning Light (LLNR 8136) is located at U.S. Coast Guard Station Humboldt Bay on the boat house jetty. The U.S. Coast Guard has issued hazardous bar warnings two hundred twenty seven (227) times (days) from June 01, 2007 to June 01, 2008.

For positions and specific description see Appendix VI Aids to Navigation; Humboldt Bay Navigational Chart (18622); Point Arena to Trinidad Head Navigational Chart (18620); Trinidad Head to Cape Blanco Navigational Chart (18600; current Light Lists are also available via the internet at www.navcen.uscg.gov/pubs/LightLists/LightLists.htm and at http://chartmaker.ncd.noaa.gov/mcd/enc/index.htm

Navigation Hazards in Humboldt Bay

Humboldt Bay is a shallow bay that has been improved for navigation by the regular maintenance of dredged channels. These channels are marked by lighted buoys and fixed lights, which constitute the majority of the Aids to Navigation.

Vessels currently experience sailing delays due to waiting for favorable tides.

The Harbor Entrance has been stabilized by the addition of stone jetties, which are marked by lights and foghorns. Some wharves or piers, which are parallel to or extend into the channels, are lighted by the U.S. Coast Guard or private entity. There are no natural rock hazards within Humboldt Bay.

Troy Nicolini of the National Weather Service - Weather Forecasting Office in Eureka along with Greg Crawford of Humboldt State University Department of Oceanography, have implemented a hazardous wave forecasting model for Humboldt Bay's entrance.

SWAN - Simulating WAves Nearshore, is a physics based wave model for

computing spectral wave energy within the nearshore environment. SWAN was developed by the department of environmental fluid mechanics at Delft University in the Netherlands. The SWAN model is currently in use at the Weather Forecasting Office (WFO) in Eureka, California. This SWAN implementation uses NOAA's WaveWatch III (WW3) global, deepwater wave model and wind grids locally forecasted at the Eureka WFO to drive the SWAN model. The model routes the spectral wave energy from WW3 through a low resolution (3.5 km) outer grid to a high resolution (50 m) inner grid based around the Humboldt Bay harbor entrance. The SWAN model routes the spectral energy while accounting for energy sinks and sources such as bottom friction and wind. The highest resolution grid also uses tidal current data produced from a hydrodynamic circulation model to produce a first order approximation of wave-current interaction at the harbor entrance.

In addition to the SWAN model, navigation safety has been improved by the presence of a waverider buoy located off the Humboldt Bay south spit, which is operated and maintained by Scripps institution of Oceanography. The waverider buoy provides data regarding wave height and period to local mariners and is available to local mariners via the internet on the National Data Buoy Center (NDBC) website as station identification number 46212.

Presently NOAA has assisted various ports throughout CA with a Physical Oceanographic Real-Time System (PORTS) in providing weather, wave, current and other physical oceanographic conditions to local mariners on a real time basis. PORTS presently operate independently, which has created inconsistency and operation maintenance and data dissemination. In 2007 Senator Lowenthal (Long Beach) introduced SB 965 that establish, the California Physical Oceanographic Real-Time System (CalPORTS). This bill would have authorized the administrator or OSPR, in cooperation with the National Oceanic and Atmospheric Administration/National Ocean Service, port authorities, and harbor safety committees, to establish, maintain, and operate a CalPORTS information network linking existing and proposed PORTS information systems, to improve the efficiency and access to critical environmental information affecting safe navigation. This Bill died in 2008 for lack of support by OSPR and lack of identification of long term O&M funding sources.

REFERENCES: Wave breaking on a current at an idealized inlet: Coastal Inlets Research Program, inlet laboratory investigations / by Jane M. Smith ... [et al.]; prepared for U.S. Army Corps of Engineers. 57 p.: ill; 28 cm.
Accessed Online 26 May 2005
http://cirp.wes.army.mil/cirp/pubs/pdf/TR-CHL-98-31.pdf

Recommendations

The Harbor Safety Committee has evaluated the Aids to Navigation and recommends the following:

Recommendation 1

Continue the ongoing maintenance program for repair and replacement of damaged navigational aids in Humboldt Bay. The above-mentioned procedures practiced by the U.S. Coast Guard remain as is without alteration at this time.

Action 1: The Aids to Navigation Team from Coast Guard Sector Group Humboldt Bay presently provides quick response to reports (usually by harbor pilots) of any damaged or "off-station" navigational aides. Contact Group Humboldt Bay at (707) 839-6123 for any repairs or replacement of damaged navigational aids, as well as missing or off-station buoys. Additionally, a USCG Cutter services the navigational aids for Humboldt Bay.

Recommendation 2

Scripps Institution of Oceanography should continue to operate and maintain waverider buoy 46212 off the Humboldt Bay south spit.

ACTION 2: The HSC recommends OSPR send a letter to Scripps Institution of Oceanography supporting the operation and maintenance of waverider buoy 46212 off the Humboldt Bay south spit.

Recommendation 4

OSPR Administrator should fund and implement a CalPORTS program giving OSPR the authority to oversee the operation and maintenance of a state wide PORTS (Cal PORTS) program.

ACTION 4: The HSC recommends OSPR support implementation of the CalPORTS program outlined in the former SB 965. The Committee recommends that the Administrator identify long term O&M funding for the CalPorts program and identify a source of funding for the capital costs.

Review by the Harbor Safety Committee prior to July 1 each year.

REF: 14 CCR 802(b)(5)(A), (B)

VESSEL ROUTING AND TRAFFIC PATTERNS

Vessel Routing

Present Conditions

Vessel traffic is restricted to existing channels. Vessels do not frequently pass each other in the channel. When this does occur the vessel with the shallower draft will move to the outer edge of the channel and allow the deeper draft vessel to use the center of the channel.

Vessel routing is conducted by pilots using VHF communication, such that vessels pass at appropriate locations in the channel and in a safe manner.

Navigation in reduced or restricted visibility proceeds based on the judgment of the ship's master or the pilot advising him.

All large vessels carry surface search radar, which allows safer navigation in reduced visibility.

Vessel traffic during dredging operations is rerouted using normal vessel-to-vessel passing procedure.

Recommendations

Existing and proposed federal, state and local laws, regulations, and ordinances affecting the harbor area were reviewed and considered in the HSC recommendations.

The HSC recommends that the above-mentioned procedures remain as is without alteration at this time.

Review by the Harbor Safety Committee prior to July 1 of each year.

Vessel Traffic Patterns

Present Use

Commodity traffic at Humboldt Harbor is composed of deep draft shipping, barge traffic and commercial fishing. Foreign flagged deep draft ships, log barges and commercial fishing vessels, domestic petroleum barges, and foreign flagged cruise ships frequent Humboldt Bay.

Visiting barges, tankers and freighters are at the upper size end of the vessels that visit and operate in the Humboldt Bay region. Canoes, rowing skiffs, small recreational boats, boats from the local and visiting fishing fleet, and small yachts, also use the harbor.

Recreational sailing and fishing activities occasionally disrupt vessel traffic patterns and create hazards to safety of navigation of large commercial vessels. Sailing vessels participating in organized sailing races occasionally have impeded large vessels which can only maneuver in narrow channels.

Recreational fishing in the Harbor Entrance Channel occurs during the salmon fishing season and may impede the passage of a vessel that can safely navigate only within the narrow channel.

To reduce conflict between small and large vessels, the HSC requested and received approval of Rule 9 to regulate vessel movement and reduce this hazard. The US Coast Guard Captain of the Port issued Public Notice 2-92 (COTPNOTE 2-92, April 15, 1992), which identifies the narrow channels for the purpose of application of Rule 9 in Humboldt Bay. See Appendix IV. (COTP Notice 2-92).

There are a number of safe boating education programs available through the appropriate schools, Community Colleges, U.S. Coast Guard Auxiliary and the California Department of Boating and Waterways. However, incidents still occur occasionally.

Recommendations

Existing and proposed federal, state, and local laws, regulations, and ordinances affecting the harbor area were reviewed and considered in the HSC's recommendations.

Recommendation 1

The State should publicize Boating Safety Programs and their availability.

Action 1: The HSC requested and received approval of Rule 9 to regulate vessel movement, thus reducing the hazard of navigation conflicts in the Humboldt Bay region. Additionally, the HSC has determined that there are a number of educational programs/courses available through the appropriate schools, Community Colleges, U.S Coast Guard Auxiliary, and the California Department of Boating and Waterways. The Committee has also concluded that the publicity for these educational courses is the responsibility of the "parent" organization.

Recommendation 2

The HSC should work to assist all organizations offering safe boating classes.

Action 2: U.S. Coast Guard Auxiliary should make this information available through their Public Education Program, and post this information at the Harbor District Office and the Yacht Club in easily accessible areas for recreational boaters to read. Currently, these boating safety programs are

published in the Department of Boating and Waterways quarterly announcement, as well as in the local newspaper.

Recommendation 3

The Harbor Safety Committee will continue to monitor vessel traffic within Humboldt Bay, and will recommend solutions if potential problems are recognized.

Recommendation 4

The Harbor Safety Committee recommends adding the condition of Rule 9 to US Coast Pilot 7, Chapter 8, under Harbor regulations in Humboldt Bay.

REF: 14 CCR 802(b)(3)(B), (4)(C), (4)(D), (4)(E), (4)(F)

The Humboldt Bay Harbor Recreation and Conservation District, with the assistance of the HSC and OSPR, has developed a Harbor Safety Guide for Humboldt Bay. The guide was completed and distributed in the summer of 2003 and is periodically updated.

BEST MARITIME PRACTICES

Introduction

Best Maritime Practices (BMPs) are accepted and agreed upon methods to conduct vessel transits or operations that are necessary for or enhance the safety of vessels, personnel, dockside facilities and marine resources. These BMPs are not to be considered regulations or laws, but *guidelines* to assist the mariner with *local knowledge* while operating in the vicinity of the Port of Humboldt Bay.

This BMP section has been designed as a reference guide for safe and environmentally sound vessel movements and operations in and around the port area. The BMPs that are covered in this section include:

- General Anchorage
- Under Keel Clearance
- Safe Speed
- Small Craft (Recreational Vessels)
- Communications
- Reduced Visibility
- Weather

More detailed and extensive information, regulations and recommendations supporting these BMPs can be found in the following documents: Port of Humboldt Bay Tariff #15 ***www.humboldtbay.org***, U.S. Coast Pilot ***www.nauticalcharts.noaa.gov***, USCG Rules of the Road ***www.navcen.uscg.gov***, Harbor Safety Plan of the Humboldt Bay Area ***www.dfg.ca.gov/ospr***, California Harbors and Navigation Code and California Boating Law ***www.dbaw.ca.gov***.

It is important to note that these BMPs are not intended to be in conflict with nor do they replace existing federal, state, and local regulations that are already in place. Nothing in these Best Maritime Practices precludes a master or pilot from taking necessary steps and prudent actions to avoid or mitigate unsafe conditions.

Important General Information

In the past Humboldt Bay was considered treacherous and dangerous, and many disasters have occurred there. Even with present improvements, mariners are still advised to use extreme caution on the bar. The strong currents that may be encountered, and the abrupt turn at the outer end of the South Jetty, are apt to be dangerous for strangers. The bar is the smoothest during the last of the flood current, and it is often passable at this time and impassable 2 hours later, when the ebb current has set in. Mariners are advised to contact Coast Guard Station Humboldt Bay on VHF channel 16 or 22A prior to transiting the bar. Caution should also be exercised inside the jetties due to the rapid change in the channel conditions. Deep-draft vessels are usually taken in and out of the bay at high tide if there is any swell on the bar because of the shoaling in the entrance channel. (Coast Pilot 7 - 40th Edition 2008)

General Anchorage

There is no designated anchorage in Humboldt Bay. Please refer to the Humboldt Bay Harbor, Recreation and Conservation District Ordinance No.17 regarding Anchorage.

Under Keel Clearance

The Humboldt Bay Harbor, Recreation and Conservation District has established rules requiring a two-foot underkeel clearance on all vessels over 300 gross tons.

Safe Speed

Speed within the port should be at a minimum safe speed to maneuver and control the vessel, with regards to weather, conditions of draft, and the maneuvering characteristics of the particular vessel.

On approaches, speed should be at a level to accommodate safe transit (minimum for existing conditions). It should be noted that the approach to the Port of Humboldt Bay generally involves cross currents which are mostly unpredictable for direction and strength.

Extreme caution (no wake) should be used in the vicinity of the Fuel Barge and a No Wake Zone exists between the Samoa Bridge and the south end of the City of Eureka's Public Marina. (City of Eureka Municipal Code §100.14)

California Harbors and Navigation Code limits vessel speed to not more that 5 miles per hour within 100 feet of any person who is engaged in the act of bathing, a swimming float, diving platform or lifeline, and within 200 feet of a beach frequented by bathers, a way or landing float to which boats are made fast or which is being used for the embarkation or discharge of passengers.

The U.S. Coast Guard has established protection zones for a distance of 500 yards around all U.S. naval vessels in navigable waters of the United States. Vessels are to proceed at a no-wake speed when within a protection zone. Non-military vessels are not allowed to enter within 100 yards of a U.S. naval vessel, whether underway or moored, unless authorized by an official patrol.

Small Craft

Recreational vessels approaching the Port of Humboldt Bay should be aware that large commercial vessels transiting to and from the port will be maneuvering either to embark or disembark a pilot, and that during these times they will be highly limited in their ability to maneuver other than for the pilot boat, or other authorized personnel.

Recreational vessels should follow the below Standards of Care to ensure the safe operation of their craft while in and around the port. Recreational vessel operators should be sensitive to the fact that large commercial vessels are severely limited in their

ability to stop or alter course and many times are limited in their ability to sight small vessels due to "blind spots" that extend more than ½ mile ahead, and therefore cannot easily avoid a collision with a smaller, more maneuverable recreational vessel.

Be aware of Security and Safety Zones around fuel barges and cruise ships. Small vessels, according to Rule 9, shall remain clear of large commercial and naval vessels that for navigational safety and the practice of prudent seamanship. Tugs with tows have limited maneuverability. Do not pass a large vessel, tugs, barges, etc. without first contacting the vessel. Be aware of ships and tugs coming up behind you in the main channel.

Standards of Care:

1. Ensure vessel is safe before getting underway
2. Ensure vessel is seaworthy
3. Keep flares and distress calling equipment readily accessible
4. Be extra careful in fog – DO NOT LOITER near the jetties or in the navigational channels
5. Comply with Rule 9 – small vessels remain clear of large vessels that must navigate within a narrow channel
6. Avoid passing larger vessels close aboard
7. Do not pass large vessels, tugs, etc without first notifying the vessel of your intention
8. Know how and when to monitor VHF Channels
9. Know vessel's position – navigation equipment i.e.: nautical charts, GPS, handheld GPS, etc.
10. Be an informed mariner:
    - 5 or more short blasts of a vessel's whistle/horn = DANGER SIGNAL
    - Know the Rules of the Road
    - Read Coast Guard Notice to Mariners
    - Monitor the weather
    - Listen to VHF Channel 16 for Coast Guard information broadcasts
    - California State Law requires all persons 11 years of age and younger to wear a personal floatation device (PFD) while underway on a vessel 26 feet or less in length. It is highly recommended that all persons wear a PFD while underway
    - Be aware of current weather conditions, tidal times, currents, and changing conditions
    - Ensure everyone on board is aware of all emergency procedures
11. (Canoes, Kayaks and Skulls – placeholder)
12. The Coast Guard offers free, non-punitive, commercial fishing vessel safety dockside exams. Upon successful completion of a dockside exam, a decal is issued and any future Coast Guard boarding at sea may be greatly abbreviated. Contact Coast Guard Group Humboldt Bay at (707) 839-6123 to schedule an exam.

Communications

- VHF Channel 16 – Hailing and Distress
- VHF Channel 14 - Port of Humboldt Bay/Woodley Island
- VHF Channel 77 - Humboldt Bay Bar Pilots
- Coast Guard Group Humboldt Bay - Emergency Search and Rescue only (707) 839-6100 or 9-1-1

Treat VHF Channel 16 like you would 9-1-1. Mariners should be aware that Channel 16 is used for “Securite” broadcasts for vessel movement and safety.

All users are encourage to minimize voice traffic on all channels, maintain circuit discipline and broadcast on “low power” whenever possible.

Cellular phone coverage can be unreliable. Do not rely on a cellular phone as your only source of communication. Cellular phones cannot replace the VHF-FM marine radio’s ability to communicate marine safety information with multiple marine users at one time.

In summary, these Best Maritime Practices are intended as a brief guide for the mariners of Humboldt Bay. All Mariners are encouraged to obtain up to date information regarding current conditions prior to departure.

For information on Safe Boating classes, please contact the local US Coast Guard Auxiliary at (707) 839-6123

VESSEL ANCHORAGE

Present Conditions

There are no officially designated anchorages within the boundaries of Humboldt Bay as defined in Section I, Geographic Boundaries. Small craft anchorages are seasonally available in Shelter Cove and Trinidad Bay.

In Humboldt Bay the area between Lighted Buoy #17 and the southern end of Fairhaven Terminal's dock, west of the main North Bay Channel, has been used as a temporary holding area. Large vessels may only hold for a single tide period, because there is not enough room in the channel for them to swing with the change in tide.

It is not the intent of the Harbor Safety Committee to officially designate any anchorages within the defined Harbor boundaries at this time because of physical limitations (narrow channel width). It is the HSC's position that current procedures be maintained, i.e. the pilot that guides the vessel be allowed to determine the most suitable holding area for that vessel at that time.

Unloaded vessels calling in Humboldt Bay shall be sufficiently ballasted to navigate the harbor entrance channel and the bar without significant difficulties. Vessels shall arrive with clean ballast or segregated ballast aboard so that it can be discharged into the harbor without pollution. Vessels arriving from foreign ports where they have loaded ballast aboard before departing that port shall change their ballast completely with clean sea water in accordance with California PRC Section 71200-71215.

Vessels' agents shall be advised to instruct masters by e-mail, facsimile, or telex to change ballast prior to arrival in Humboldt Bay.

There are no shoreside ballast reception facilities available for vessels calling in Humboldt Bay.

Recommendations

Recommendation 1

a. *All vessels calling at marine terminals in Humboldt Bay shall have sufficient mooring ropes or wires of proper strength to hold the ship fast to the marine terminal during all weather conditions which may be expected in Humboldt Bay.*

b. *It is the responsibility of the owner/operator of the terminal to ensure that the bollards and hooks on the docks and mooring dolphins to which the ship attaches its mooring ropes and wires shall be of sufficient holding strength to hold the ship alongside during all conditions which may be expected in Humboldt Bay*.

c. *Each terminal shall provide mooring facilities that can be used by ships for safe mooring. Terminals shall have bearing surface of sufficient strength to lie against and support the ship properly.*

d. *The Humboldt Bay Harbor District, in consultation with the HSC, developed an anchoring ordinance adopted June 2004*.

Action 1: The HSC has determined that due to physical limitations (narrow channel width), anchorages will not be officially designated within the defined Harbor boundaries and that current procedures will be maintained (i.e., the pilot that guides the vessel will be allowed to determine the most suitable "holding" area for that vessel at that time). It should be clarified in the plan's annual update that there are no anchorages within the bay, and that there is a one-way traffic channel which shall be adhered to in order to make harbor travel safe.

The HSC has made Recommendation 1 a-d with regard to safe mooring. However, upon further discussion with the HSC members, no further action will be required by the OSPR, as these recommendations are already being practiced by vessel and terminal owners/operators, and sufficient mooring ropes or wires during transfer operations are already required under federal regulation (33 CFR 156.120 (a)).

REF: 14 CCR 802(b)(3)(c)

VESSEL TRAFFIC SERVICE

The Humboldt Bay HSC has examined the need for a Vessel Traffic Service (VTS) in Humboldt Bay and has determined that VTS is not needed. It would not significantly enhance the safe movements of vessels and barges in and about Humboldt Bay, nor would it reduce the risk of environmental harm resulting from grounding and collisions.

There are 7 terminals in Humboldt Bay which are currently being used by ships and barges. The terminal located farthest from the sea buoy at the main channel entrance is 6.6 miles from that sea buoy. Humboldt Bay harbor is relatively small compared to other harbors on the U.S. West Coast that have planned for or are using VTS.

There is only one entrance channel into Humboldt Bay, and the North Bay has one main ship channel. This channel is 400 feet in width, and normally does not permit large ships to meet or pass in the channel. Therefore, normally only one-way traffic exists, and only one ship moves at a time in Humboldt Bay.

The Humboldt Bay Bar Pilots direct all of the ship movements in the bay. According to Federal Law, all U.S. registered ships and all foreign ships (all vessels 300 gross tons or more) must use a bar pilot when transiting the bay. From a practical standpoint U.S. ships under enrollment (a type of registration issued by the United States Coast Guard), which are not required to take a bar pilot, do so nevertheless. Therefore, all ship movements in the bay are directed or monitored by the bar pilots.

Tugs with barges under tow carrying "certain hazardous materials" must report to the U.S. Coast Guard Station at the entrance to Humboldt Bay prior to transiting the bay. These movements are in turn reported to the bar pilots who monitor these barge movements. In Section XI, Communications, the Humboldt Bay HSC has recommended that all tugs with barges and self-propelled vessels over 200 feet in length make security broadcasts at various locations in the bay and approaches, so that large vessel movements are known by all users.

There are two tug boat companies serving Humboldt Bay which provide assistance to vessels mooring, unmooring, and transiting the bay, and assist barge movements in the bay. The tug companies work in close liaison with the bar pilots, and any vessel or barge movements assisted by the tug companies are coordinated with the bar pilots.

The Humboldt Bay Harbor Safety Committee has determined that a Vessel Traffic Service is not needed in Humboldt Bay based on the above facts and circumstances.

Recommendations

The Committee has examined the need for a Vessel Traffic Service (VTS) in Humboldt Bay, and has determined that conditions in the harbor currently do not warrant the need to install a VTS. The need for a Vessel Traffic System will be reevaluated periodically.

REF: 14 CCR 802(b)(9)(A), (B)

TUG ESCORTS

Present Conditions

The present use of tugs in Humboldt Bay is for escort of vessels and petroleum barges, and to assist with vessel docking and undocking.

Humboldt Bay is served by Knutson Towboat Company and Brusco Tug and Barge.

The operating company, power, propulsion, and size of the tugboats operating in Humboldt Bay are as follows:

Name	Operator	Power	Propulsion	Length x Beam x Draft
Koos King	Knutson Towboat Company	2000 h.p.	twin screw	63'11" x 23'11" x 7'6"
Mary Ann Brusco	Brusco Tug and Barge	**	**	**

Bollard pull capacity for the 'Koos King', is listed in Appendix VII.

** Brusco Tug and Barge declined to provide current bollard pull certificates, therefore, is denied tank escort and assist services per CCR 14, section 851.85 (h)4.

Pilotage is required for all U.S. ships under enrollment and all foreign ships (all vessels 300 gross tons or more). It is recommended that any mariners unfamiliar with Humboldt Bay employ a local pilot. Pilots board vessels about 0.5 miles west of Humboldt Bay Entrance Lighted Whistle Buoy (HB). Bar Pilots also provide visibility and bar condition information for ships using the service.

Tugboat assistance is advised by the Humboldt Bay Bar Pilots due to the lack of maneuvering room in Humboldt Bay, and increased vessel size. The assist tugs are presently used for the dual purpose of assist and escort.

At times strong and unpredictable cross currents can occur at the Harbor Entrance. These currents are predicated on past weather conditions.

Southerly weather accompanied by a southwesterly to westerly swell creates a strong current during low water periods at the 110-degree turn from the Lighted Buoy No. 5 to Light No. 11.

For approximately the first three miles of the transit the tug assist/escort boats are not made fast to the vessel employing them. This is due to the open sea conditions that exist.

It would be nearly impossible for a tug to approach a ship moving at full power and trying to negotiate the sometimes treacherous swell and currents of the Humboldt Bay entrance if the larger vessel lost its power or steering. It would also be dangerous to slow the larger vessel to a speed at which the tug could come alongside because that would result in

considerably less control of the larger vessel by the pilot. However, a ship negotiating the 110-degree turn at the Humboldt Bay entrance or moving at slower speeds inside the harbor would benefit from the presence of an escort tug if a loss of engine or steering control occurred. The escort tug would be able to provide some steering and/or stopping ability for the stricken vessel.

The pilot may send the escort tug ahead of the ship to make certain that the ship's path is clear. Tugs are also indispensable in thick fog for marking buoys and lights and checking tidal current conditions ahead of the ship while the pilot is navigating the narrow channels of Humboldt Bay.

Before a vessel arrives at the port, the ship's captain radios the port requesting tug and pilot service. The tug then transits the entrance, meets the vessel, and the bar pilot boards the vessel. It is at the pilot's discretion as to whether a tug escort is needed. If not, the escort tug returns to port and meets the assist tug. These two tugs are then used to berth the vessel. This procedure reversed when the vessel is ready to leave the harbor.

Tugboats engaged in escorting or assisting vessels in Humboldt Bay shall continue their service until dismissed by either the pilot or the master of the vessel employing them. However, the master of the tugboat engaged in escorting or assisting another vessel may temporarily halt or discontinue service if he deems his crew or vessel is in immediate danger.

Recommendations

Recommendation 1

The HSC shall annually review the performance and effectiveness of tug capabilities. This review shall rely, in part, on information solicited by the HSC from pilots, masters, industry representatives, and other parties.

Recommendation 2

The Humboldt Bay Area HSC recommends the following number of assist tugboats, which will also function as tug escorts, for vessels and barges in the Humboldt Bay Harbor.

a. *All barges carrying hazardous or liquefied compressed gasses will be escorted according to escort procedures described by the current Captain of Port Public Advisory (See Appendix IV*).

b. *All tank vessels must have a qualified Humboldt Bay Bar Pilot and escort tug. Additional tug(s) will be standing by and prepared to render assistance.*

c. *Any vessel equipped with a working bow and/or stern thruster may substitute this equipment for the services of one tugboat provided that*

such substitution does not reduce the total number of tugs below one (1). It shall be understood that the minimums contained herein reflect ideal circumstances and conditions. The master/pilot shall arrange for additional tugboat assistance should adverse weather conditions, unusual port congestion, or other conditions or circumstances so require.

Recommendation 3

Tugs and barges transporting oil or oil derivative products, or "certain dangerous cargoes" as described in 33 CFR 160.203 shall comply with the following rules and regulations:

a. All barges carrying hazardous or liquefied compressed gasses will be escorted according to escort procedures described by the current Captain of Port Public Advisory (See Appendix IV).

b. 46 CFR 15.812

REF: 14 CCR 802(b)(1)(A), (B)(i), (B)(iv), (B)(v), (C)(i), (C)(ii), (C)(iii), (C)(iv), (1)(D)

Review by the Harbor Safety Committee prior to July 1 each year.

PILOTAGE

The ports of Long Beach, Los Angeles, San Diego, Port Hueneme, and Humboldt Bay; the State of California; and the U. S. Coast Guard have executed a Memorandum of Agreement (MOA) to create an improved system of pilotage. The parties to this agreement intend to maintain the safety of vessel navigation and port and environmental safety by establishing local pilotage training and apprenticeship programs which ensure the use of pilots with local knowledge on vessels over 300 gross tons not in enrollment while navigating at the ports subject to this agreement. This agreement also created a Pilotage Advisory Committee in each port subject to this agreement, which will provide recommendations for the implementation and improvement of the pilotage system for the port. The Humboldt Bay Harbor, Conservation, and Recreation District currently employs and licenses pilots for Humboldt Bay.

The Humboldt Bay Pilotage Advisory Committee completed its report on April 20, 1999. The Harbor District Board accepted the report and forwarded it to the OSPR Administrator on April 22, 1999, thereby fulfilling the requirements of the MOA. Training standards and pilot proficiency were then codified in the Harbor District's Ordinance 15: General Tariff No. 1.

Pilotage standards are maintained by apprenticeship, professional growth, and oversight programs defined in Ordinance 15. The State will review programs for consistency. The Ports will maintain control of pilots.

Recommendations

Any COTP order altering movement of any vessel arriving or departing Humboldt Bay must include notification of the Port Authority and Humboldt Bay Bar Pilots.

Recommendation 1

U.S. Coast Guard shall notify the Port of Humboldt Bay of any COTP order altering the movement of any vessel arriving or departing Humboldt Bay.

Action 1: The OSPR will submit a letter to the USCG requesting COTP orders altering movement of any vessel arriving or departing Humboldt Bay must include notification of the Port of Humboldt Bay.

COMMUNICATIONS

Present Condition

At this time communication from vessel to vessel, and vessel to shore (commercial) is by VHF radio. Many smaller craft (pleasure boats and sail boats) rely on CB radio.

Current VHF channels and their use/user is listed below:

VHF Channel (Frequency - kHz)		Use/User
10	(156.500)	Port Operations Only
13	(156.650)	Bridge to Bridge Navigation
16	(156.800)	Emergency (Open at All Times)
22A	(156.100)	Coast Guard Public Access
77	(156.875)	Pilot to Tug Communication

At this time there are not believed to be any "silent" or low propagation areas within the defined harbor boundaries.

Pilots and boaters have occasionally experienced "bleed over" of signal from the Eureka Police Department's communications system. Occasionally an emergency transmission will override the pilot's hand-held VHF radio set.

It is the opinion of the Harbor Safety Committee that current communications systems are adequate and that current procedures be maintained. The Harbor Safety Committee recommends three new communications procedures.

Recommendations

Recommendation 1

The U.S. Coast Guard shall announce daily on Channel 22A that Channel 13 is for bridge to bridge communication, Channel 77 is for pilot to tug communication, and neither channel shall be used for personal, non-business communication.

It will be left to the Coast Guard's discretion as to when to make the announcement. This information shall also be posted at the Harbor office.

Action 1: For the convenience of all harbor users, the USCG will make their daily announcements at the same time each day.

Recommendation 2

The following types of vessels are subject to security calls:

a. *Tugs with barges, and*

b. *Self propelled vessels over 200 feet in length*

Action 2: The USCG will be responsible for the posting this information at the harbor office and publishing it in the Local Notice to Mariners.

Recommendation 3

Security calls shall be made on channels 13 and 16 when:

a. *Inbound vessel reaches the sea buoy*

b. *Vessel is about to move from dock to dock*

c. *Vessel is leaving dock for sea.*

Security calls will allow other vessels to be aware of ship or barge movements approaching and leaving the harbor.

"Sea" is considered to be beyond the end of the jetties.

Action 3: The OSPR will work with the USCG to monitor the progress of communications improvements and will provide assistance as necessary. HSC members will be updated periodically on the progress of this project.

Recommendation 4

The Harbor Safety Committee recommends adding the VHF Channels and Users to US Coast Pilot 7, chapter 8, for Humboldt Bay.

REF: 14 CCR 802(b)(6)(A), (B), (C)

Review by the Harbor Safety Committee prior to July 1 each year.

CASUALTY DATA (2002 - 2007) WITHIN THE HUMBOLDT BAY REGION

46 CFR Cit. 1, Subpart 4.03 - Definitions

4.03 - 1 Marine casualty or accident.

(a) The term marine casualty or accident shall mean any casualty or accident involving any vessel other than public vessels if such casualty or accident occurs upon navigable waters of the United States, its territories or possessions or any casualty or accident wherever such casualty or accident may occur involving any United States' vessel which is not a public vessel.

(b) The term marine casualty or accident includes any accidental grounding, or any occurrence involving a vessel which results in damage by or to the vessel, its apparel, gear, or cargo, or injury or loss of life of any person; and includes among other things, allisions, collisions, strandings, groundings, founderings, heavy weather damage, fires, explosions, failure of gear and equipment and any other damage which might affect or impair the seaworthiness of the vessel.

(c) The term marine casualty or accident also includes occurrences of loss of life or injury to any person while diving from a vessel and using underwater breathing apparatus.

SUMMARY OF CASUALTY DATA FOR HUMBOLDT BAY BY VESSEL TYPE 2002-2007

	VESSEL TYPE			
YEAR	**LARGE COM'L**	**TUG/BARGE**	**SMALL FISHING/PLEASURE**	**DEATH**
2002	2	0	33	1
2003	0	0	15	1
2004	0	0	12	3
2005	3	0	8	0
2006	1	0	7	0
2007	0	0	9	0

SUMMARY OF CASUALTY DATA IN HUMBOLDT 2002-2007
BY VESSEL TYPE, VESSEL SIZE, CAUSE OF CAUSALITY AND RESULT

Year	2002	2003	2004	2005	2006	2007
Number of Vessels	36	15	12	11	8	0
Vessel Type						
Dry Cargo	4	0	0	0	1	0
Other Commercial	1	1	0	3	0	0
Commercial Fishing	26	14	8	7	7	9
Recreational	5	0	4	1	0	0
Vessel Size						
<100 GT	34	14	12	9	7	9
100-1,000 GT	0	1	0	0	0	0
>1,000 GT	2	0	0	2	1	0
Cause of Casualty						
Mechanical/Physical	24	13	8	7	8	3
Operator Error	12	2	2	2	0	6
Unknown	0	0	2	2	0	0
Nature of Casualty						
Collision	6	0	0	0	0	0
Disabled	13	10	4	3	4	2
Grounding	5	1	4	2	1	1
Sinking	7	3	3	3	4	1
Fire	3	1	1	1	1	1
Unknown	0	0	0	2	0	4

Annual review of U.S. Coast Guard data and information solicited by the HSC from pilots, masters, industry representatives, and other parties shall be performed to assess the effectiveness of tug escorts in the prevention of accidents.

REF: 14 CCR 802(b)(1)(c)(v.); (4)(B)

MOTOR VEHICLE BRIDGES

Present Condition

Highway 255 crosses over Eureka, Indian Island, and Arcata Channel by way of a fixed highway bridge. Clearances of the three spans are 40 feet vertical, 150 ft. horizontal from Eureka to Woodley Island; 30 feet vertical, 100 feet horizontal from Woodley Island to Indian Island; and 45 feet vertical, 200 feet horizontal from Indian Island to the Samoa Channel. Vertical clearances are referred to mean high water. No large commercial vessels pass under these spans. Small pleasure and sailing craft pass under these spans while on their way to use the boating, sailing opportunities, and commercial oyster harvesting activities that exist on Arcata Bay during high tide periods.

These bridges have undergone seismic retrofit (project completed spring 2006). The horizontal and vertical clearances were not altered.

Recommendations

Present procedures and regulations are believed to be adequate; there are no recommendations for change at this time.

REF: 14 CCR 802(b)(7)(A)

Review by the Harbor Safety Committee prior to July 1 each year.

MONITORING AND PLAN ENFORCEMENT

Present Condition

Monitoring

Each member of the HSC as they function within the meaning of the existing federal, state, and local laws, regulations and ordinances as they affect the Humboldt Bay Area, is charged with the responsibility of bringing back to the Harbor Safety Committee any recommended changes to the foregoing.

Enforcement

The U.S. Coast Guard is the principal regulator of vessel movements within the harbor boundaries as defined in Section I. The Coast Guard performs these duties on air, sea, and land through the use of helicopters, patrol boats, and shoreside surveillance.

Pursuant to 33 CFR 6, Protection and Security of Vessels, Harbors, and Waterfront Facilities (Espionage Act), the rules and regulations of the relevant legislative authorities shall be enforced by the Captain of the Port (COTP) under the supervision and general direction of the District Commander and the Commandant. The COTP may supervise and control the movement of any vessel. The Espionage Act has powers based on security, not safety, and has only criminal penalties.

The Ports and Waterways Safety Act (PWSA) of 1972, as amended by the Port and Tanker Safety Act of 1978, (33 USC 1221 et seq.) provides the strongest authority for the Coast Guard's port safety program, and is intended to increase vessel safety and protect the marine environment in ports, harbors, waterfront areas, and navigable waters. It allows the establishment of a Vessel Traffic Service (VTS), control of vessel movement, establishment of requirements for vessel operation, and other related port safety controls. This Act allows civil and criminal penalties for violations.

In addition, a number of other laws call for Coast Guard enforcement. These include the Federal Water Pollution Control Act, which delegates enforcement authority and responsibility to the Coast Guard in cases where oil and hazardous substances are discharged into U.S. waters in quantities which may be harmful. In addition, the Act to Prevent Pollution from Ships (33 USC 1901 et seq.) limits the operational discharges of oil from ships and requires reception facilities to receive waste that cannot be discharged at sea. Finally, the Marine Protection, Research and Sanctuaries Act of 1972 (33 USC 1401 et seq.) requires Coast Guard surveillance of ocean dumping activities.

COTP Orders (33 CFR 160.111) are directed at individual vessels, and address short-term hazards. Any long term directive would require that federal rule making procedures be followed. COTP orders may involve establishing a vessel traffic routing scheme or vessel size, speed, and draft limitations; restricting traffic movement to one direction and to certain times, and requiring vessels to be assisted by tugboats.

Enforcement of the Harbor and Navigation Code of the State of California is the responsibility of the Humboldt County Sheriff's Department and is funded by the State of California.

Recommendations

The local enforcement officer of OSPR and Humboldt County Sheriff marine officer will monitor and enforce the Harbor and Navigation code, and the Harbor Safety Plan.

REF: 14 CCR 802(b)(8)(A)

FUNDING AND COMPETITION

Present Condition

Funding

Funding for the majority of the recommendations will be from government agencies. Periodic soundings shall be conducted under the direction of the U.S. Army Corps of Engineers. Installation, movement, and repair of navigational aids shall be conducted by the U.S. Coast Guard.

The cost of hiring tugs is borne by the shipping company. The cost of maintaining Bar Pilots is borne by the Humboldt Bay Harbor, Recreation and Conservation District.

Procedural recommendations will not require funds to implement.

It is the responsibility of the shipping company and its vessel masters to be knowledgeable of procedures and rules of operation in Humboldt Bay, as described in this document.

The hazardous wave forecasting model (SWAN) for Humboldt Bay has been funded by the National Weather Service Forecasting Office whereas the CDIP Waverider buoy is funded by the Scripps institute of Oceanography.

Recommendations

Recommendation 1

The Committee recommends that SB2040 be amended to provide funding for all the recommendations put forth in this Plan as established in Article 6, Section 8670.40 (e).

	Action 1	Responsible entity
a	Annual soundings of the entrance and North Bay channels to monitor shoaling.	U.S. Army Corps of Engineers (USACE)
b	Conditional soundings in April for North Bay channel, Samoa channel, bar and entrance to indicate post-storm season conditions.	
c	Annual soundings of the entrance channel and North Bay channel to monitor shoaling.	
d	Monthly soundings, December through May, from bar to beacon #11.	
e	Annual sounding of berths.	Owner of respective berths
f	Experimental hazardous wave forecasting model	NOAA/NWS and the USACE

g	Repair or replacement of damaged navigational aids.	U.S. Coast Guard
h	Relocation of entrance range.	
i	Assist tug for vessels that meet the criteria.	Shipping company
j	Long Term Sediment Management Program	USACE and the State of California

Recommendation 2

The Committee recommends that the Administrator petition the California Transportation Commission to fund the local share of the Long Term Sediment Management program through proposition 1B funds.

Should funding not be available through the recommended entities the Committee requests that the recommendations be funded through OSPR revenues as provided by SB2040 Article 6, Section 8670.40 (e).

Competition

The preceding rules, recommendations, and procedures have been compiled to create a harbor that can operate safely and with economic and regulatory feasibility.

The economic effects of this document will be felt most on barge shipping companies, as they are required to obtain escort tugs when transiting Humboldt Bay.

Humboldt Bay is one port; therefore there are no port to port restrictions in Humboldt Harbor.

Dock owners will be impacted financially by the cost of annual berth soundings. Maintenance of the berthing area and the dock itself are normal expenses incurred by the dock owner.

Changes/modifications of communications protocol shall not have a negative fiscal or negative competitive effect on the harbor or shipping companies.

REF: 14 CCR 802(b)(10)(A), (B); (11)(A), (B)

The OSPR will endorse the HSC's recommendations made in the Harbor Safety Plan; however, the OSPR can not fund all of the recommendations within the Plan, nor can SB 2040 be amended to provide such funding. Should the HSC determine that more funding is required in the future, the HSC may prepare recommendations in the Plan, as part of the annual update for specific projects recommending a specific amount of funding for specific projects as described in the Plan that could not get funded. The OSPR will consider these recommendations as part of its review to determine the source and feasibility of funding.

SUMMARY

SUMMARY OF HARBOR SAFETY COMMITTEE ACTIONS

Existing and proposed federal, state and local laws, regulations, and ordinances affecting the harbor area were reviewed and considered in the HSC's recommendations.

GEOGRAPHIC BOUNDARIES

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

HARBOR CONDITIONS

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

HARBOR DEPTH AND CHANNEL DESIGN

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

MONITORING THE IMPROVED CHANNELS

The HSC has evaluated the current program to determine accurate depth information and find that continued monitoring and improvements are needed.

Action 1: The OSPR will petition the U.S. Army Corps of Engineers to perform recommendation 1 a-e as part of a program to determine and portray accurate depths for Humboldt Bay. A letter of request will be prepared by the OSPR Planning Branch within 30 days of the date the Harbor Safety plan has been approved and will be submitted to:

U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103-1398
Attn: Lt. Colonel Laurence M. Farrell
(415) 503-6700

Should funding not be available through the recommended entity the Committee requests that the recommendation be funded through OSPR revenues as provided by SB2040. Art. 6, Section 8670.40, e.

Review by the Harbor Safety Committee prior to July 1 each year.

AIDS TO NAVIGATION

The Harbor Safety Committee has evaluated the Aids to Navigation and recommends that OSPR request the USCG to implement the following changes:

Action 1: The Aids to Navigation Team from Coast Guard Sector Group Humboldt Bay presently provides quick response to reports (usually by harbor pilots) of any damaged or "off-station" navigational aides. Contact Group Humboldt Bay at (707) 839-6123 for any repairs or replacement of damaged navigational aids, as well as missing or off-station buoys. Additionally, a USCG ship comes from San Francisco 2 to 3 times per year for repairs.

Action 2: The HSC will continue to monitor the effectiveness of the hazardous wave forecasting model.

Review by the Harbor Safety Committee prior to July 1 each year.

VESSEL ROUTING AND TRAFFIC PATTERNS

Vessel Routing

Existing and proposed federal, state, and local laws, regulations, and ordinances affecting the Harbor area were reviewed and considered in the HSC's recommendations.

It is the recommendation of the HSC that the current vessel routing procedures remains as is without alteration at this time.

Review by the Harbor Safety Committee prior to July 1 each year.

Vessel Traffic Patterns

Existing and proposed federal, state, and local laws, regulations, and ordinances affecting the Harbor area were reviewed and considered in the HSC's recommendations.

Action 1: The HSC requested and received approval of Rule 9 to regulate vessel movement, thus reducing the hazard of navigation conflicts in the Humboldt Bay region. Additionally, the HSC has determined that there are a number of educational programs/courses available through the appropriate schools, Community Colleges, U.S Coast Guard Auxiliary, and the California Department of Boating and Waterways. The Committee has also concluded

that the publicity for these educational courses is the responsibility of the "parent" organization.

Action 2: U.S. Coast Guard Auxiliary should make this information available through their Public Education Program, and post this information at the Harbor District Office and the Yacht Club in easily accessible areas for recreational boaters to read. Currently, these boating safety programs are published in the Department of Boating and Waterways quarterly announcement, as well as in the local newspaper.

REF: 14 CCR 802(b)(3)(B), (4)(C), (4)(D), (4)(E), (4)(F)

The Humboldt Bay Harbor Recreation and Conservation District, with the assistance of the HSC and OSPR, has developed a Harbor Safety Guide for Humboldt Bay. The guide was completed and distributed in the summer of 2003 and is periodically updated.

Review by the Harbor Safety Committee prior to July 1 each year.

BEST MARITIME PRACTICES

Review by the Harbor Safety Committee prior to July 1 each year.

VESSEL ANCHORAGE

The HSC has determined that due to physical limitations (narrow channel width), anchorages will not be officially designated within the defined Harbor boundaries and that current procedures will be maintained (i.e., the pilot that guides the vessel will be allowed to determine the most suitable "holding" area for that vessel at that time). It should be clarified in the plan's annual update that there are no anchorages within the bay, and that there is a one-way traffic channel which shall be adhered to in order to make harbor travel safe.

The HSC has made Recommendation 1 a-d with regard to safe mooring. However, upon further discussion with the HSC members, no further action will be required by the OSPR, as these recommendations are already being practiced by vessel and terminal owners/operators, and sufficient mooring ropes or wires during transfer operations are already required under federal regulation (33 CFR 156.120 (a)).

REF: 14 CCR 802(b)(3)(c)

VESSEL TRAFFIC SERVICE

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

TUG ESCORTS

a. All barges carrying hazardous or liquefied compressed gasses will be escorted according to escort procedures described by the current Captain of Port Public Advisory (See Appendix IV).

b. All tank vessels must have a qualified Humboldt Bay bar pilot and escort tug. Additional tug(s) will be standing by and prepared to render assistance.

c. Any vessel equipped with a working bow and/or stern thruster may substitute this equipment for the services of one tugboat provided that such substitution does not reduce the total number of tugs below one (1). It shall be understood that the minimums contained herein reflect ideal circumstances and conditions. The master/pilot shall arrange for additional tugboat assistance should adverse weather conditions, unusual port congestion, or other conditions or circumstances so require.

PILOTAGE

Any COTP order altering movement of any vessel arriving or departing Humboldt Bay must include notification of the Port Authority.

COMMUNICATIONS

It is the opinion of the Harbor Safety Committee that current communications systems are adequate and that current procedures be maintained. The Harbor Safety Committee recommends three communications procedures.

Action 1: For the convenience of all harbor users, the USCG will make their daily announcements at the same time each day.

Action 2: The USCG will be responsible for the posting this information at the harbor office and publishing it in the Local Notice to Mariners.

Action 3: The OSPR will work with the USCG to monitor the progress of communications improvements and will provide assistance as necessary. HSC members will be updated periodically on the progress of this project.

Review by the Harbor Safety Committee prior to July 1 each year.

CASUALTY DATA (2002-2007) WITHIN THE HUMBOLDT BAY AREA

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

MOTOR VEHICLE BRIDGES

No current recommendations.
Review by the Harbor Safety Committee prior to July 1 each year.

TSUNAMI

The HSC will participate in the development of the tsunami section of the County of Humboldt Emergency Operations Plan.

MONITORING AND ENFORCEMENT

The local enforcement officer of OSPR and Humboldt County Sheriff marine officer will monitor and enforce the Harbor and Navigation Code and the Harbor Safety Plan.

FUNDING AND COMPETITION

	Action 1	Responsible entity
a	Annual soundings of the entrance and North Bay channels to monitor shoaling.	U.S. Army Corps of Engineers (USACE)
b	Conditional soundings in April for North Bay channel, Samoa channel, bar and entrance to indicate post-storm season conditions.	
c	Annual soundings of the entrance channel and North Bay channel to monitor shoaling.	
d	Monthly soundings, December through May, from bar to beacon #11.	
e	Annual sounding of berths.	Owner of respective berths
f	Experimental hazardous wave forecasting model	NOAA/NWS and USACE
g	Repair or replacement of damaged navigational aids.	U.S. Coast Guard
h	Assist tug for vessels that meet the criteria.	Shipping company

Should funding not be available through the recommended entities the HSC requests that the recommendations be funded through OSPR revenues as provided by SB2040 Article 6, Section 8670.40 (e).

APPENDICES

APPENDIX I

MAPS

Insert Map Here

Appendix I – 1 : Location Map – Humboldt Area

Insert Map Here

Appendix I – 2 : Harbor Safety Committee of the Humboldt Bay Area Boundary

Insert Map Here

Appendix I – 3 : Humboldt Bay Area Facilities Map

Insert Map Here

Appendix I – 4 : Humboldt Bay Area

Insert Map Here

Appendix I – 5 : Trinidad Harbor Area

Insert Map Here

Appendix I – 6 : Shelter Cove Area

Insert Map Here

Appendix I – 7 : Cape Mendocino Area

APPENDIX II

DFG - OSPR letter from Mr. Pete Bontadelli, Administrator, approving the originally submitted Harbor Safety Plan.

Insert Letter Here

APPENDIX III

Senate Bill 2040
Chapter 1248, 8670.23 - section creating Harbor Safety Committees.

California Code of Regulations Title 14, Division 1. Subdivision 4, Chapter 3, Subchapter 1, 800.0. - Harbor Safety Committees.

Insert SB 2040 Here

Insert CCR Here

APPENDIX IV

REGULATIONS AND CAPTAIN OF THE PORT ADVISORIES

A. Code of Federal Regulation Title 33 Navigation and Navigable Waters Section 165.1195 Regulated Navigation Area; Humboldt Bay Bar Channel and Humboldt Bay Entrance Channel, Humboldt Bay, California.

B. COTP NOTICE 02-92; Enforcement of Navigation Rules in Humboldt Bay

Rule 9 - Navigation Rules for Narrow Channels.

Insert CFR 33 Here

Insert COTP 02-92 Here

Insert Nav Rules Here

APPENDIX V

HARBOR SAFETY COMMITTEE OF THE HUMBOLDT BAY AREA
BY-LAWS
As Amended 22 May 2008

Article I: Name

Section 1. The Harbor Safety Committee of the Humboldt Bay Area (hereinafter referred to as the Committee).

Article II: Purpose

Section 1. The Committee is established pursuant to Section 8670.23 of the Government Code and Title 14, California Code of Regulations, Sections 800-802, and is responsible for planning for the safe navigation and operation of tank ships, tank barges, and other vessels within the harbor, and making recommendations to the Administrator of the Office of Spill Prevention and Response (OSPR), hereinafter referred to as the Administrator.

Article III: Membership

Section 1. Membership Categories

a. Members shall be selected from local representatives of organizations or companies in the Humboldt Bay Area region whenever possible.

b. The Committee shall consist of members appointed by the Administrator as follows:

1. One designee representing the port authority within the harbor;
2. One representative of tank ship operators;
3. One representative of the pilot organization within the harbor;
4. One representative of dry cargo vessel operators;
5. One representative of commercial fishing;
6. One representative of pleasure boat operators;
7. One representative of a recognized Tribal/nonprofit environmental organization that has as a purpose the protection of marine resources;
8. One representative of the California Coastal Commission;
9. One representative from a recognized labor organization involved with operations of vessels;
10. One representative of tug or tank barge operators, neither of whom shall also be engaged in the business of operating either tank ships or dry cargo vessels;
11. One representative from Local Law Enforcement;
12. One representative from Coast Guard Group Humboldt Bay;

13. One representative from each of the following: Captain of the Port from the U.S. Coast Guard; U.S. Army Corps of Engineers; and the U.S. Navy, to the extent that each consents to participate on the committee.

c. Appointees filling membership categories identified in items b1 through b9, above, are specified as appointed members.

Section 2. Membership Qualifications

The members appointed from the categories listed in Section 1b (1), (2), (3), (4), (8), and (9) shall have navigational expertise. An individual is considered to have navigational expertise if the individual meets any of the following conditions:

a. Has held or is presently holding a Coast Guard Merchant Marine Deck Officer's license;
b. Has held or is presently holding a position on a commercial vessel that includes navigational responsibility;
c. Has held or is presently holding a shore side position with direct operational control of vessels;
d. Has held or is currently holding a position having responsibilities for permitting or approving the docking of vessels in and around harbor facilities.

Section 3. At-Large Members
This Section was removed in 2008 to be consistent with current OSPR regulations.

Section 4. Term of Membership for Appointed Members and their Alternates

a. A member shall be appointed for a three-year term.
b. A member's appointment shall be terminated as a result of any of the following circumstances:

    1. The member retires from, or otherwise leaves employment under which he/she was appointed. Members who leave their employer may, if qualified under their new employment, apply for the seat they vacated or, if qualified, apply for another Committee seat that becomes vacant.
    2. The member undergoes a change in work responsibilities which alters the constituency which he/she represents, or alters their qualifications for the position.
    3. The member voluntarily resigns for any reason.
    4. A member is removed by the Administrator for any reason under Section 7 below.

c. A member impacted by any of the conditions identified in items 1-4 above is expected to submit their resignation to the Chair (with a copy to the Administrator) within five working days.
d. Any incumbent completing his/her three-year term may re-apply.
e. Except as noted in Section 5c, below, an alternate's term expires when the primary member leaves service for any reason.

Section 5. Alternates for Appointed Members

a. The alternate representative shall be appointed by the Chair. Only one alternate shall be appointed for each primary member, and only the appointed alternate is accorded proxy powers. The alternate shall be selected from the same membership category as the primary member, and shall meet the same qualifications. The appointed alternate may vote, participate in, or take any other action on behalf of the primary member consistent with the Committee's bylaws and any applicable statutory or regulatory provisions.
b. An alternate may vote only in the absence of the primary member.
c. When a primary members resigns or is removed an alternate may serve until such time as a new primary member is appointed.
d. The Chair shall be guided by the following for appointing alternates:

    1. When possible, the primary member should be allowed to recommend their alternate;
    2. If there is more than one applicant for a position, the primary member and the Chair should consider the other applicants when selecting alternates. The Chair shall consider diversity of organizations within each membership category when selecting alternates.

Section 6. Attendance of Appointed Members

a. Attendance of scheduled Committee meetings is expected. The standard of attendance is determined as follows:

    1. For each appointed membership category team consisting of a primary member and alternate, missing three consecutive meetings is considered to be not meeting the standard of attendance.

    2. For a primary member with no alternate, missing four consecutive meetings is considered to be not meeting the standard of attendance.

b. The Committee Chair shall review the meeting attendance records on a regular basis and shall inquire about members and teams with excessive absences.
c. The Chair may make an exception to the attendance standards for a member experiencing extenuating circumstances.

Section 7. Member Removal

a. Circumstances may arise which require that a Committee member voluntarily resign or be removed from their position. Such events include:

    1. Failing to meet attendance standards, as set in Section 6;
    2. Falsifying application materials;
    3. The member's term ending prematurely due to meeting one of the conditions described in Article III, Section 4, items b1 and b2.

b. A member who demonstrates any of the three criteria listed above is expected to voluntarily tender his written resignation to the Chair (with a copy to the Administrator) within five working days of being informed of this condition. If the expected resignation is not

forthcoming, the Chair shall privately contact the member, explain which bylaw(s) has been violated, and seek the member's resignation. If the request is not honored within ten working days, the Chair shall write to the member (with a copy to the Administrator), explaining which bylaw(s) has been violated and, again, request a resignation. If the resignation is not offered within 15 working day, the Chair shall notify the Administrator in writing (with a copy to the member) of the situation, identify which bylaw(s) has been violated, and seek the Administrator's assistance in removing the recalcitrant member.

c. The Chair shall announce at the next full meetings the resignation or removal of any member.

Article IV: Officers

Section 1. The Administrator shall appoint a Chairperson for the Committee from the membership specified in Article III.

Section 2. The Chair shall appoint a Vice-chairperson for the Committee from the membership specified in Article III, from a membership category other than that of the Chairperson.

Section 3. An Executive Secretary (Secretariat) shall be contracted by the Administrator. The Secretariat shall serve as the Administrative staff to the Committee.

Article V: Subcommittees and Work Groups

Section 1. The Committee may establish Subcommittees and Work Groups, as it deems necessary. Meetings shall be duly noticed and open to the public in accordance with Article VII to receive maximum participation.

Section 2. The Chair of the Harbor Safety Committee shall appoint the chairperson of Subcommittees and Work Groups. The Chair may appoint Subcommittee members.

Section 3. Subcommittees should be composed of an uneven number of voting Committee members with no fewer than three people on a subcommittee. Vote by the majority of the subcommittee members present shall be necessary to pass a recommendation of the subcommittee. If a majority of Committee members are voting at a subcommittee meeting, that meeting should be noticed as a meeting of the full Harbor Safety Committee.

Section 4. Work Groups may be composed of any number of participants. Work Groups should operate by consensus of those present, including interested members of the public.

Section 5. Subcommittees and Work Groups may make recommendations to the full Committee, which will vote on the recommendations as detailed in Article VIII. Recommendations should be made in writing and provided to the Committee prior to any vote on the matter.

Article VI: Recommendations from Committee

Section 1. The Committee shall make recommendations or requests of the Administrator on rules, regulations, guidelines and policies on Harbor Safety. The Committee shall make recommendations or requests to other federal, state or local agencies.

Section 2. The Committee shall prepare and submit a Harbor Safety Plan and annual updates to the Administrator by June 30 of each year or as directed otherwise by the Administrator.

Article VII: Meetings

Section 1. Governing rules for meetings shall be the Ralph M. Brown Act (Open Meetings for Local Legislative Bodies), the Humboldt Bay Area HSC bylaws, and Robert's Rules of Order.

Section 2. Each Committee member and alternate shall be provided a copy of the Humboldt Bay Area HSC bylaws and the Harbor Safety Plan. Upon request, Committee members and alternates, as well as interested parties, shall be provided a copy of the Brown Act.

Section 3. The Committee normally meets bi-monthly at the Humboldt Bay Harbor District office.

Section 4. Quorum

In order for a meeting to take place, a quorum of members or their alternates consisting of six (6) membership categories, shall be present. Should a quorum not be present, the Committee can proceed as a committee of the whole, take public testimony, receive input on any agenda item duly noticed, but cannot take action on any item.

Section 5. Agenda for Meetings:

a. An agenda drafted by the Secretariat in consultation with the Committee Chair shall be prepared for each meeting of the Committee. The agenda shall be distributed no fewer than seven (7) days prior to the scheduled meeting and shall comply with all provisions of the Brown Act.
b. In accordance with the Brown Act, agendas for full Committee meetings shall be posted 72 hours in advance at the Secretariat's office. Posting shall be visible from the outside of the building.
c. Agendas shall include a brief general description of each item to be discussed, including whether voting action is anticipated to be taken on an item.
d. Each agenda item that requires Committee action shall include time for public comment.
e. The Committee may take action on an item not appearing on the agenda by determining that an immediate need exists and it came to the attention of the Committee after the agenda was distributed. This determination must be approved by a two-thirds (2/3 rd) vote of all appointed Committee members, if fewer than two-thirds (2/3rd) of all appointed members are in attendance by a unanimous vote of those appointed members present.
f. A Committee member or member of the public can discuss an item not on the agenda under New Business/Public Comments. However, no action by the Committee can be taken until such time as the item is duly noticed at a regular or special meeting, and time has been allotted to receive public input prior to Committee action.

Article VII: Voting

Section 1. Voting

a. The Humboldt Bay Area Harbor Safety Plan annual review shall be approved by two-thirds (2/3rd) of the appointed Committee members or their alternates.
b. With the exception of items specified in Section 1a of this Article, Article VII, Section 6 and Article IX, passage of any item subject to a vote by committee members shall require a simple majority of appointed members, or their alternates present at a meeting. No action shall be taken on any item which is not on the agenda provided pursuant to Article VII, Section 6, except as allowed by Article VII, Section 6e.
c. Due to the advisory nature of the Committee and its selected representatives, members shall not be excused from voting in case of potential conflict of interest.

Article IX: Bylaws Review, Acceptance and Amendments

Section 1. Enactment of Bylaws

To enact bylaws, the proposed bylaws must be:

a. Included as an agenda item at a regular meeting
b. Noticed to the public in accordance with Article VII, Section 6, of these bylaws.
d. Be approved by a two-thirds (2/3rd) of the appointed Committee members or their alternates.

Section 2. Bylaws Status

The bylaws shall become effective after Committee approval and shall continue in force until amended or repealed.

Article X: Certification

I certify that these bylaws were approved by the Harbor Safety Committee of the Humboldt Bay Area on 22 May 2008, at Eureka, California, by a vote of __7__ yea to __0__ nay. This document is true and correct, and constitutes the official bylaws governing the Committee. These bylaws shall remain in force until amended or repealed in accordance with Article IX.

_____
David Hull
Date: July 18, 2008

APPENDIX VI

AIDS TO NAVIGATION

For positions and specific description refer to the most current Humboldt Bay Navigational Chart (18622); Point Arena to Trinidad Head Navigational Chart (18620); Trinidad Head to Cape Blanco Navigational Chart (18600); current Light Lists are also available via the internet at www.navcen.uscg.gov/pubs/LightLists/LightLists.htm and http://chartmaker.ncd.noaa.gov/mcd/enc/index.htm

Insert Light List Here

APPENDIX VII

BOLLARD PULL CERTIFICATES

Insert Bollard Pull Certificates Here

APPENDIX VIII

HUMBOLDT COUNTY DRAFT TSUNAMI PLAN
TSUNAMI CONTINGENCY PLAN

Insert Draft Tsunami Plan Here

APPENDIX IX

DOCK ADDRESS SYSTEM

Insert Dock Address System Here

APPENDIX X

TASKS

TASKS FOR 2008/2009

- **Humboldt Bay Bar/Entrance Camera**
- **Needs assessment of shipping channel modifications**
- **Work with Humboldt County Office of Emergency Services in the development of the Tsunami Plan**
- **HSC to work with ACP to validate Hazardous Materials Subcommittee**
- **HSC to review the Humboldt County Hazardous Mitigation Plan**

ONGOING ISSUES SUPPORTED BY THE HARBOR SAFETY COMMITTEE OF THE HUMBOLDT BAY AREA

- **HSC to review the Redwood Marine Terminal Plan**
- **Initiate Long-Term Shoal management feasibility study with USACE**
- **Continue support for CalPORTS real time oceanographic program for Humboldt Bay**
- **Removing minimum dredge fleet restrictions on government dredges**
- **Continuing support of education for boater safety (USCG Auxiliary, EXPO, PSA's, etc.)**
- **Continually monitor maintenance dredging and charting**
- **Updating safety brochures**

COMPLETED TASKS

Item - Description	Year Completed
Vessel Routing and Traffic Patterns – Implementation of AIS for northern California Coast	**2008**
Vessel Anchorage – In cooperation with the Area Contingency Plan Committee, Pre-identify information necessary for responding to requests for Places of Refuge	**2008**
Vessel Pilotage – Humboldt Bay navigation simulation update	**2008**
Vessel Pilotage – Humboldt Bay maximum vessel simulation and analysis	**2008**
Aids to Navigation – Dock Address System completed	**2007**
Aids to Navigation – Chart naming conventions standardized	**2007**
Aids to Navigation – Hookton Channel Light 1 replaced with Hookton Channel Lighted Buoy 1	**2005**
Aids to Navigation - NOAA Tide and Current Survey for Humboldt Bay completed. New tide information reflected in 2006 tide books and charts.	**2004**
Vessel Anchorage - Anchoring ordinance establishing rules and regulations regarding anchoring inside Humboldt Bay	**2004**
Vessel Routing and Traffic Patterns - Harbor Safety Brochure information on general vessel/navigation rules of the road.	**2003**
Aids to Navigation - Lighted ranges now lit for a longer period of time.	**2002**